ENVIRONMENTAL PROTECTION AGENCY

[OPPTS–00274D; FRL–6758–5]

Voluntary Children's Chemical Evaluation Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA is announcing the Voluntary Children's Chemical Evaluation Program (VCCEP) and asking manufacturers (including importers) of 23 chemicals to volunteer to sponsor their chemical(s) in the first tier of a pilot of this Program. Developed after considering various comments and concerns voiced by a number of individuals through a stakeholder involvement process, the VCCEP is a program designed to provide data to enable the public to better understand the potential health risks to children associated with certain chemical exposures. EPA has also taken steps, as described in this document, to consider animal welfare and to provide instructions on ways to reduce or in some cases eliminate animal testing, while at the same time ensuring that the public health is protected. The Program is also designed to ensure that health effects and exposure data are made available to allow EPA and others to evaluate the risks of these chemicals so that mitigation measures may be taken as appropriate.

DATES: To be included in Tier 1 of the pilot VCCEP, EPA must receive a letter of commitment from a company volunteering to sponsor a chemical(s) between January 25, 2001 and June 25, 2001.

Volunteering for Tier 1 means sponsors would begin to develop Tier 1 information not later than 6 months after the end of the Tier 1 sign up period. The sign up period ends June 25, 2001. Sponsors may make separate commitments to upper tiers of the pilot program at a later time.

ADDRESSES: Commitment letters may be submitted by mail or in person. Please follow the detailed instructions for each method as provided in Unit I. of the **SUPPLEMENTARY INFORMATION.** To ensure proper receipt by EPA, it is imperative that you identify docket control number OPPTS–00274D in the subject line on the first page of your commitment letter.

FOR FURTHER INFORMATION CONTACT: *For general information contact*: Barbara Cunningham, Acting Director, Environmental Assistance Division (7408), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (202) 554–1404; e-mail address: TSCA-Hotline@epa.gov.

For technical information contact: Ward Penberthy, Chemical Control Division (7405), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (202) 260–1730; e-mail address: penberthy.ward@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this Action Apply to Me?

This action is directed to the public in general. This action may, however, be of special interest to those chemical manufacturers, importers, and processors who produce or use chemical substances that are covered by the Toxic Substances Control Act (TSCA), individuals or groups concerned with chemical testing and children's health, and animal welfare groups. Since other entities may also be interested, the Agency has not attempted to describe all the specific entities that may be affected by this action. If you have any questions regarding the applicability of this action to a particular entity, consult the technical person listed under **FOR FURTHER INFORMATION CONTACT.**

B. How Can I Get Additional Information, Including Copies of this Document or Other Related Documents?

1. *Electronically*. You may obtain electronic copies of this document, and certain other related documents that might be available electronically, from the EPA Internet Home Page at http://www.epa.gov/. To access this document, on the Home Page select ''Laws and Regulations,'' ''Regulations and Proposed Rules,'' and then look up the entry for this document under the ''**Federal Register**—Environmental Documents.'' You can also go directly to the **Federal Register** listings at http://www.epa.gov/fedrgstr/.

To access information about the VCCEP, the previously held stakeholder meetings, or relevant documents, you may go directly to the web site at http://www.epa.gov/chemrtk/childhlt.htm.

2. *In person*. The Agency has established an official record for this action under docket control number OPPTS–00274D. The official record consists of the documents specifically referenced in this action, any public comments received during an applicable comment period, and other information related to this action, including any information claimed as Confidential Business Information (CBI). This official record includes the documents that are physically located in the docket, as well as the documents that are referenced in those documents. The public version of the official record does not include any information claimed as CBI. The public version of the official record, which includes printed, paper versions of any electronic comments submitted during an applicable comment period, is available for inspection in the TSCA Nonconfidential Information Center (NCIC), North East Mall Rm. B–607, Waterside Mall, 401 M St., SW., Washington, DC. The Center is open from noon to 4 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Center is (202) 260–7099.

C. How and to Whom Do I Submit a Commitment Letter?

A commitment letter to sponsor a chemical(s) may be submitted through the mail or in person. To ensure proper receipt by EPA, it is imperative that you identify docket control number OPPTS–00274D in the subject line on the first page of your letter.

1. *By mail*. Submit your letter to: Document Control Office (7407), Office of Pollution Prevention and Toxics (OPPT), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

2. *In person or by courier*. Deliver your letter to: OPPT Document Control Office (DCO) in East Tower Rm. G–099, Waterside Mall, 401 M St., SW., Washington, DC. The DCO is open from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The telephone number for the DCO is (202) 260–7093.

D. What Must I Include in My Commitment Letter?

The commitment letter must provide the name and Chemical Abstract Service Registry Number (CAS No.) of the chemical being sponsored, a commitment to start the development of the information no later than 6 months after the end of the sign up period, and an anticipated start date and submission date to EPA. The commitment letter must also identify the entity (company or consortium of companies) sponsoring the chemical and provide the name, address, e-mail address, telephone, and fax numbers of a technical contact.

II. Background

A. What Action is the Agency Taking?

EPA is asking manufacturers (hereinafter manufacturers include importers) of 23 chemicals to commit to sponsor the chemical(s) in a pilot of the

VCCEP for the purpose of making health effects, exposure, and risk information on these chemicals available to both EPA and the public. EPA is taking this action in the form of a pilot program so it can gain insight into how best to design and implement the VCCEP in order to effectively provide the Agency and the public with the means to understand the potential health risks to children associated with exposure to these and ultimately other chemicals to which children may be exposed. The VCCEP is a component of EPA's Chemical Right-to-Know initiative which committed EPA to ''....review and report on what new testing may be needed to assess the special impact industrial chemicals may have on children.''

Volunteering to sponsor a chemical in any tier of the VCCEP pilot requires the companies sponsoring chemicals (hereinafter ''sponsors'') to make chemical-specific public commitments to make certain hazard, exposure, and risk assessment data and analyses publicly available. The information will be provided by the sponsors in a maximum of three tiers and will be used to make judgements about the risks to children. Companies, through this process, have the opportunity to sponsor chemicals at Tier 1 during the sign up period which will begin January 25, 2001 and end on June 25, 2001. After the submission of Tier 1 information and its review by a Peer Consultation Group, a third party contractor will compile and forward the results of the Peer Consultation to EPA. EPA will announce if additional information is needed to assess a chemical's risk to children and will indicate what information in Tier 2 should be provided. Companies will then be given an opportunity to sponsor chemicals at Tier 2. EPA plans to use the same process to review Tier 2 information to determine if Tier 3 information is needed and companies will then be given an opportunity to sponsor chemicals at Tier 3. Detailed information on how the VCCEP will operate is presented in Unit III. EPA expects to modify the design of the VCCEP based on the results of the pilot.

B. What is the Agency's Authority for Taking this Action?

Congress gave EPA the authority to implement TSCA for the purpose of protecting human health and the environment by requiring testing and, if necessary, restricting the use of certain chemical substances. The VCCEP is a voluntary program which focuses on developing data and assessments necessary to protect children. This document describes the design of the VCCEP and initiates this program in the form of a pilot. If some chemicals are not sponsored in the VCCEP, EPA will consider whether a test rule under section 4 of TSCA is appropriate.

C. What Process has EPA Used to Develop this Program?

In initiating a chemical evaluation program, decisions need to be made regarding the appropriate chemicals to consider and the appropriate toxicology and exposure studies to conduct. To address these issues, EPA initiated a public stakeholder involvement process to bring together individuals with a broad range of interests in children's health issues to provide input, on an individual basis, into the design of a voluntary program to obtain needed data. The stakeholders in this process have included chemical manufacturers who could be required to conduct testing of chemical substances under section 4 of TSCA, individuals or groups concerned with chemical testing, children's health, and/or environmental protection, other Federal government agencies, and animal welfare groups. EPA held three public meetings to obtain individual comments and concerns from these stakeholders for the development of the VCCEP. These meetings were held September 22, 1999, November 30–December 1, 1999, and April 26–27, 2000. EPA also considered comments submitted by stakeholders throughout the process (Refs. 1–29 and 35). Details of this process and summaries of the public meetings can be found at http://www.epa.gov/chemrtk/childhlt.htm.

D. How Were Candidate Chemicals for the VCCEP Identified?

After considering the individual comments offered by some of the stakeholders during the public meetings or in comments submitted to the docket (Refs. 28 and 29), EPA decided to focus this program on chemicals which have been found to be present as contaminants in:

- Human tissues or fluids (e.g., adipose tissue, blood, breast milk, breath).
- Food and water children may eat and drink.
- Air children may breathe, including residential or school air.

In an effort to identify chemicals to which children would have the highest likelihood of exposure, EPA selected chemicals which were found by biomonitoring data to be present in the human body (adipose tissue/blood/breast milk/breath) and found by environmental data to be present in a person's environment (in food, drinking water, breast milk, air). If a chemical were listed in at least one biomonitoring database and at least one environmental database, it was identified as a candidate for the VCCEP.

The biomonitoring databases EPA used in chemical identification are:

- National Health and Nutrition Examination Survey III (NHANES III).
- National Human Adipose Tissue Survey (NHATS).
- National Human Exposure Assessment Survey (NHEXAS).
- Total Exposure Assessment Methodology (TEAM).

The environmental databases EPA used in chemical identification are the following:

- The Food and Drug Administration (FDA) database of Everything Added to Food in the United States (EAFUS).
- National Contaminant Occurrence Database (NCOD) (includes unregulated drinking water contaminants).
- National Human Exposure Assessment Survey (NHEXAS).
- Total Exposure Assessment Methodology (TEAM).
- EPA Office of Research and Development studies and other published indoor air data.

EPA used additional criteria to remove chemicals as candidates for the VCCEP. Among these criteria were:

- They were not chemicals produced in or imported into the United States in an amount sufficient to meet TSCA Inventory Update Rule (IUR) reporting criteria.
- They are chemicals being phased out under the Montreal Protocol.
- They are chemicals whose risks to children are believed by EPA to be adequately managed by other ongoing programs.

A list of the over 150 chemicals found in the biomonitoring databases as well as a working list of candidate chemicals for VCCEP can be found in *Methodology for Selecting Chemicals for the Voluntary Children's Chemical Evaluation Program (VCCEP) Pilot* (Ref. 38). Descriptions of the databases used for chemical selection and additional details regarding the selection process are also included in this reference.

There was an exception to the identification process which was raised and discussed during the last stakeholder meeting. This exception relates to the identification of three polybrominated diphenyl ethers for the VCCEP without relying on the use of the databases. Polybrominated diphenyl ethers, as a class of chemicals, were found to be increasing in concentration in human breast milk in a recent Swedish study (Ref. 30). EPA used this

study and TSCA IUR reporting, which indicates that chemicals are manufactured in the United States, to identify specific chemicals in this chemical class to include in this program (Ref. 50). Although EPA did not rely on the databases for the identification of these chemicals, it believes that the study provides biomonitoring evidence of exposure of the mother and also environmental evidence of the potential exposure via a food source of the child.

The VCCEP candidate chemicals identified and screened by the criteria described in this Unit II.D. were further evaluated to select chemicals for the pilot as described in Unit III.A.

E. What is the Significance of a Chemical's Being Identified for the VCCEP?

The identification of chemicals for the VCCEP was one of the more challenging aspects of the program's development. Both EPA and some stakeholders agreed that available data sources provided limited insight on children's exposure to chemicals. Consequently, to identify chemicals for the VCCEP, EPA used existing data sources believed to be especially relevant to children's chemical exposures, such as presence of the chemical in human tissues/blood, in food and water children eat and drink and in air children breathe. EPA acknowledges that the chemical identification process does not take into account the unique aspects of children's potential for exposure, based on their behaviors and activities. For this reason, EPA wishes to make clear what the list of chemicals selected for the VCCEP represents and what it does not represent.

Identification for the VCCEP does not mean that the existing hazard and exposure data have been or will be determined to be inadequate. EPA has not made judgements regarding the adequacy or significance of existing hazard or exposure data for any of the chemicals selected for the pilot. While EPA recognizes that many of these chemicals are known to be relatively ''data rich,'' assessment of the adequacy and significance of hazard and exposure information will be a task of the sponsors participating in the voluntary program.

Identification for the VCCEP also does not mean that EPA has made or will make a determination that any uses of the chemical pose significant risks to children's health. The level of potential risk to children will be determined as part of the VCCEP. The chemical identification process for the VCCEP did not make this determination. It is also important to note that for any given chemical in the VCCEP, EPA may ultimately determine that reasonably anticipated exposures and risks from expected uses do not pose any unique or other concerns for children's health and safety.

F. How did EPA Decide Which Tests are Necessary to Evaluate a Chemical's Risk to Children?

EPA has undertaken significant technical efforts to define an appropriate test battery for the VCCEP over the last 2 years. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel and invited members of the EPA Science Advisory Board (SAB) convened in late May 1999 to review the recommendations of the Toxicology Working Group of the 10X Task Force. The Toxicology Working Group had developed recommendations for a core data set necessary to assess the potential hazards to children following exposure to conventional food use pesticides (Ref. 32). These recommendations were prepared for consideration in developing the implementation policy for the Food Quality Protection Act's (FQPA) 10-fold Safety Factor. EPA's OPPT sought input and advice from this EPA advisory group about the appropriateness of using a selected subset of the 10X battery to address industrial chemicals to which children were likely to be exposed. The subset of tests which EPA proposed included the following types of studies:

- Acute studies (oral, dermal, or inhalation).
- Subchronic (90-day) feeding studies in rodents.
- Oncogenicity studies in two species of rodents (rats and mice preferred).
- Prenatal developmental toxicity studies in rodents and nonrodents (rats and rabbits preferred).
- 2-Generation reproduction study in rodents.
- General metabolism study in rodents.
- Mutagenicity studies (*in vivo* and *in vitro* assays of gene mutations and structural chromosomal aberrations).
- Acute and subchronic neurotoxicity in rats.
- Immunotoxicity study in rodents.
- Developmental neurotoxicity study in rodents (usually rats).

The SAP's comments were supportive with respect to the subset of tests which EPA proposed as the test battery for the VCCEP:

> The Panel could not conclusively determine whether the proposed Children's Health Testing Program (now the VCCEP) battery was appropriate to evaluate the potential hazards of industrial/commercial chemicals to which children may have high potential exposure. In any event, the Panel concluded that the Agency should retain the standard toxicology protocols and add the more specific developmental neurotoxicity, immunotoxicity, and neurotoxicity tests now proposed for pesticides . . . and that it was appropriate for the proposed battery of tests to be viewed as a single tier of studies. In addition, the Panel believes that non pesticide (industrial/commercial) chemicals be considered in the same manner as pesticides with regard to their potential to impact the health of children . . . and that being the case, it would be prudent for the Agency to require the same or similar types of toxicity data on chemicals of industrial/commercial use as pesticides. (Ref. 33)

These tests and the appropriate guidelines for conducting these tests in the VCCEP are discussed in Unit III.D.

G. Why does the VCCEP Need Exposure Assessments?

Although the biomonitoring data used in chemical selection (discussed in Unit II.D. and III.B.) provide strong qualitative evidence that human exposure to the VCCEP chemicals has occurred, not all of the data were obtained recently and there are questions regarding the quality of some of the data, causing some to question their relevance. Although EPA believes the biomonitoring data are still relevant, more information would be valuable to assure a full understanding of current exposure patterns and levels, especially as they relate to children. The VCCEP will provide sponsors the opportunity to submit exposure data that reflect current exposures. Submission of exposure information to EPA is included as a component in Tier 1, Tier 2, and Tier 3 of the VCCEP, as described in Unit III.H., III.J., III.K., and III.L.

An equally important reason for collecting exposure data in the VCCEP is its need in risk assessment. To assess risk, exposure data are needed as much as hazard data. Hazard data may indicate a chemical's potential to cause adverse health effects, but exposure data are needed to put those data in context. A chemical may test as potentially hazardous, but if there is no or very low exposure to the chemical, there may be a low risk of the chemical causing adverse health effects. Likewise, exposure data which indicate low or no exposure can support an argument that additional hazard data may not be necessary, thus avoiding unnecessary expenditures of testing resources. The VCCEP includes this principle in its design by requiring the consideration of exposure, hazard, and risk data before deciding whether data from the next tier of information are needed.

III. The VCCEP

A. How Were VCCEP Candidate Chemicals Further Culled to Identify Chemicals for the VCCEP Pilot?

The names of the 23 chemicals identified for the VCCEP pilot program are listed in Table 1 of this unit in CAS No. order. These chemicals were identified using the criteria discussed in Unit II.D. Table 1 of this unit indicates the specific databases which were the source of the biomonitoring data and the environmental monitoring data which together supported the selection of a chemical.

An additional factor which influenced which candidate chemicals were selected for the pilot program was the availability of hazard data. For reasons discussed in Unit III.C., EPA wanted to select chemicals for the pilot which have available Tier 1 hazard data. To identify such chemicals, EPA used two primary indications of data availability:

1. Data were available from the Organization for Economic Cooperation and Development (OECD) Screening Information Data Set (SIDS) Program, and

2. Chemicals with commitments in the High Production Volume (HPV) Challenge Program that had early start years, i.e., 2000 or 2001.

Table 1 of this unit indicates which chemicals have early start years in the HPV Challenge Program and which chemicals have available or soon to be available SIDS data.

In the final selection for the VCCEP pilot, several chemicals otherwise meeting the hazard data availability selection criterion were not included in the pilot.

• Several chemicals were deferred because the only biomonitoring data supporting their selection were from NHATS or the only environmental data supporting their selection were from EAFUS. This is because several stakeholders questioned whether these data sets were appropriate for this chemical selection application.

• Several phthalate esters are included in the working list of candidate chemicals for VCCEP presented in the *Methodology for Selecting Chemicals for the Voluntary Children's Chemical Evaluation (VCCEP) Program Pilot* (Ref. 38). EPA is aware that phthalates are used in a wide variety of products, including some that present opportunities for exposure to children, which has been an important consideration in the selection of candidate substances for the VCCEP. EPA also is aware that several phthalates are currently the subjects of assessments being performed by other government agencies, including some assessments that are specifically addressing potential exposures and hazards to children. These other assessments include:

1. The National Toxicology Program (NTP) Center for the Evaluation of Risks to Human Reproduction (CERHR) which is preparing detailed assessments of the scientific evidence for whether a given exposure or exposure circumstance may pose a hazard to reproduction and the health and welfare of children for seven phthalates—dibutyl phthalate (DBP), butylbenzyl phthalate (BBP), di-n-hexyl phthalate (DnHP), di-n-octyl phthalate (DnOP), di(2-.ethylhexyl) phthalate (DEHP), diisononyl phthalate (DINP), and diisodecyl phthalate (DIDP). A separate assessment is being prepared for each phthalate by an expert panel chosen specifically for the phthalates. Each assessment will be an evaluation of the scientific evidence for whether adverse reproductive/developmental health effects are associated with exposures to the phthalate and will include the expert panel's conclusions about knowledge gaps for the phthalate. (Ref. 53). Additional information is available on web site http://ntp-server.niehs.nih.gov/htdocs/liason/CERHRPhthalatesAnnct.html.

2. The Consumer Product Safety Commission (CPSC) has convened a Chronic Hazard Advisory Panel (CHAP) to evaluate the existing information regarding whether chronic hazards (cancer, birth defects, and gene mutations) may be posed by DINP and the implications of these hazards on risks to children. The CHAP expert panel will evaluate available hazard and exposure information, including data generated by the CPSC in its testing laboratory on the amount of DINP that is likely to come out of a toy when chewed or mouthed by a young child. (Ref. 54).

3. The FDA is preparing a risk assessment of DEHP in medical devices, including medical devices that result in exposure to infants and newborn babies. (Ref. 55).

Additional information is available on web site http://www.fda.gov/cdrh/present/DEHP_GHTF.pdf.

In addition, risk assessments of DBP, BBP, DEHP, DINP, and DIDP are being conducted by scientists in the European Union (EU).

Most of these assessments are close to being complete. It would be neither practical nor efficient to attempt to repeat all of the work of these other assessments under the VCCEP program, but EPA believes the outcome of these assessments will provide helpful information for deciding whether the risks of phthalates to children have been adequately characterized, and which, if any, of the phthalates are appropriate for inclusion in the VCCEP. In some cases, the work of these other bodies may facilitate review of phthalates under the VCCEP. In other cases, EPA may determine that in light of these hazard and risk assessments, further review under the VCCEP is either unnecessary or a low priority. Accordingly, EPA is not deciding whether to include phthalates in the VCCEP Pilot at this time. Instead, EPA will reevaluate the phthalates in approximately 6–9 months, after many of the assessments have been completed. The producers of phthalates have agreed to provide the assessments to EPA once they are completed, and to include in that submission their assessment of the extent to which further evaluation under the VCCEP is or is not necessary. EPA will review these materials when they are received to determine which phthalates, if any, the Agency believes are appropriate for further evaluation under the VCCEP at that time. The materials submitted by the producers will be made publicly available and EPA will invite input from other stakeholders before making its decisions.

• Styrene was deferred from the pilot program because of ongoing assessments which are well advanced and substantially equivalent to the VCCEP in that they address potential exposures and hazards to children. The assessments underway are listed below:

1. The Styrene Information and Research Center (SIRC), which is composed of styrene manufacturers and users, has sponsored toxicological research covering nearly all the health endpoints to be addressed by the VCCEP and has funded additional 2-generation reproduction and developmental neurotoxicity testing (Ref. 23).

2. The Center for Risk Analysis at the Harvard School of Public Health has created a risk assessment panel on styrene. The panel is undertaking an exposure assessment and an independent hazard analysis of styrene and is expected to include an evaluation of risks to children's health in its review (Ref. 23). The SIRC was asked to submit exposure data to support the assessment being conducted at Harvard (Ref. 23) which is expected to be available to EPA by July 2001.

3. EPA's Integrated Risk Information System (IRIS) program is currently conducting an assessment of available hazard data on styrene which will address all of the health endpoints included in the VCCEP. The IRIS assessment will address children as a

subpopulation in its review and may include both short-term and long-term health values for children in the IRIS summary document which EPA will issue for styrene (Ref. 23).

EPA believes these assessments will provide helpful information for whether the risks of styrene to children have been adequately characterized. EPA may determine after receipt of these hazard, exposure, and risk assessments, that further review under the VCCEP is either unnecessary or a low priority. As with the case with phthalates, materials submitted by the producers will be made publicly available and EPA will invite input from other stakeholders before making its decision.

Additional details on how chemicals were selected for the pilot are provided in the document *Methodology for Selecting Chemicals for the Voluntary Children's Chemical Evaluation Program (VCCEP) Pilot* (Ref. 38).

TABLE 1.—CHEMICALS IDENTIFIED FOR THE VCCEP PILOT

CAS No.	Chemical name	HPV Chall. Commit. [1]	SIDS[2]	Chemicals found in human biological samples				Chemicals found in human environment	
				NHANES	NHEXAS	TEAMS	Human milk [3]	NCOD	Indoor air
67–64–1	Acetone		Y	Y					Y
71–43–2	Benzene		Y	Y	Y	Y		Y	Y
75–35–4	Vinylidenechloride	Y				Y		Y	Y
78–93–3	Methyl ethyl ketone		Y	Y					Y
79–01–6	Trichloroethylene		Y	Y		Y		Y	Y
80–56–8	α-Pinene	Y				Y			Y
95–47–5	*o*-Xylene	Y		Y		Y		Y	Y
100–41–4	Ethylbenzene		Y	Y		Y		Y	Y
106–46–7	*p*-Dichloroben zene		Y	Y		Y		Y	Y
106–93–4	Ethylene dibromide	Y				Y		Y	Y
107–06–2	Ethylene dichloride	Y				Y		Y	Y
108–38–5	*m*-Xylene	Y				Y		Y	Y
108–88–3	Toluene		Y	Y		Y		Y	Y
108–90–7	Chlorobenzene	Y		Y		Y		Y	Y
112–40–3	*n*-Dodecane	Y				Y			Y
123–91–1	*p*-Dioxane		Y			Y			Y
124–18–5	Decane		Y			Y			Y
127–18–4	Tetrachloroethylene		Y	Y	Y	Y		Y	Y
541–73–1	*m*-Dichlorobenzene	Y				Y		Y	Y
1120–21–4	Undecane		Y			Y			Y
1163–19–5	Decabromodiphenylether		Y				Y		
32534–81–9	Pentabromodiphenyl ether		Y				Y		
32536–52–0	Octabromodiphenyl ether		Y				Y		

[1] HPV Challenge commitment with early start year (2000 or 2001).
[2] SIDS Screening Information Assessment Report is available.
[3] The chemicals in this column were chemicals identified in Ref. 30 that were also reported to the TSCA IUR

EPA is aware of recent ongoing discussions between the Agency for Toxic Substances and Disease Registry (ATSDR) and the Halogenated Solvents Industries Association (HSIA) regarding the voluntary testing of two chemicals relevant to the VCCEP pilot, i.e., trichloroethylene (CAS No. 79–01–6) and tetrachloroethylene (CAS No. 127–18–4). These chemicals have been the subject of discussions relating to priority data needs identified by ATSDR as part of a proceeding under the Emergency Planning and Community Right-to-Know Act (EPCRA) section 110 and are also likely to be included in a test rule proposal being developed under TSCA section 4 at ATSDR's request. EPA understands that ATSDR and HSIA may soon come to agreement on arrangements to meet some of ATSDR's priority hazard data needs for these two pilot chemicals. While the testing being discussed would meet some of the hazard data needs of the VCCEP, it would not address exposure information needs and there appear to be several important deficiencies with regards to higher tier toxicity end points. In the event that ATSDR and HSIA can conclude their voluntary testing arrangement in the near future, EPA believes that a workable course of action in this case may be to use the ATSDR-HSIA work as input to Tier 1 hazard information. If this occurs, the delivery date for Tier 1 information and assessments prepared by VCCEP pilot sponsors could be adjusted to take account of the timing elements in the ATSDR-HSIA agreement. In the event that ATSDR and HSIA are unable to conclude a voluntary testing arrangement in the near future, EPA will consider the chemicals open for sponsorship under the Pilot as described in this notice.

Although only *o*-xylene and *m*-xylene are listed in Table 1 of this unit as pilot chemicals, the sponsors of these chemicals may want to consider addressing *p*-xylene (CAS No. 106–42–3) and mixed xylenes (CAS No. 1330–20–7) as they proceed in the VCCEP pilot. These two xylenes were deferred from the pilot because they are not been sponsored in the HPV Challenge Program and there is no Tier 1 data available from the OECD SIDS program. EPA believes these 4 chemicals may present the potential for a group approach.

B. Has EPA Completed Any Evaluations that Demonstrate the Relevance of the Biomonitoring Data Sets?

EPA considers the biomonitoring data as strong evidence of exposure and as providing a strong rationale for identifying a chemical for this program. EPA has evaluated the biomonitoring data not only for the detection of a chemical by the monitoring program, but also the detection frequency and concentration of the chemical in the tested biological medium. Examples of these data for the VCCEP pilot chemicals are presented in Table 2 of

this unit. The information in Table 2 is intended to be illustrative rather than complete. Many of the listed chemicals were also found in other human monitoring studies, some of which report the frequency of occurrence and some of which do not. The blood levels shown in Table 2 are from NHANES III; the breath data are from TEAM studies; and the breast milk data are from a recent Swedish study (Ref. 30). A number of the candidate chemicals were also studied in NHEXAS, but these data are not included in Table 2 because all of the chemicals found in NHEXAS were also reported in NHANES III.

With the possible exception of the Swedish breast milk study, all of the monitoring programs from which these data were drawn were relatively large, broad-scale studies. The blood data were derived from a subset of the national scale NHANES III population and were used to establish reference ranges for the chemicals studied. NHEXAS involved surveys in EPA Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin), in the State of Arizona, and in the Baltimore Metropolitan Area. TEAM studies were done in communities in California, New Jersey, North Carolina, and North Dakota. Because of the size and scope of these programs, the detection of a chemical at even a relatively low frequency may indicate exposure to a large population. The significance of the reported concentrations is difficult to interpret without information about the exposure events that led to a chemical's occurrence in that tissue and a detailed knowledge of that chemical's metabolic fate. At present, the reported data are best used simply as a qualitative indicator that exposure has occurred.

The first substance in Table 2 of this unit does not exactly match the corresponding entries on the pilot chemical list. However, EPA believes that the TEAM data on the mixture of meta and para isomers of dichlorobenzene are relevant to the listing of *m*-dichlorobenzene and *p*-dichlorobenzene as individual isomers. Likewise, the NHANES III data on mixed meta and para isomers of xylene are relevant to the listing of *m*-xylene in the pilot chemical list. Also, the listing of polybrominated diphenyl ethers in Table 2 of this unit and the data from the Swedish study (Ref. 30) is relevant to three entries on the pilot chemical list (decabromodiphenyl ether, pentabromodiphenyl ether, and octabromodiphenyl ether).

TABLE 2.—FREQUENCY OF DETECTION AND CONCENTRATION OF SELECT VCCEP PILOT CHEMICALS IN CERTAIN HUMAN BIOMONITORING STUDIES

CAS No.	Chemical name	Medium	Detection frequency	Concentration
	m,p-Dichlorobenzene	breath	91% of 49	GM[1]= 1.81 μg/m^3
	m,p-Xylene	blood	≥75% of 649	med[2]= 0.19 ppb
	Polybrominated diphenylethers	milk		mean = 4 ng/g
67–64–1	Acetone	blood	≥75% of 1062	med = 1,800 ppb
71–43–2	Benzene	blood	≥75% of 883	med = 0.06 ppb
75–35–4	Vinylidene chloride	breath	95% of 49	WAGM[3] = 6.6 μg/m^3
78–93–3	Methyl ethyl ketone	blood	≥75% of 1101	med = 5.4 ppb
79–01–6	Trichloroethylene	blood	13% of 677	
80–56–8	α-Pinene	breath	92% of 110	GM = 0.94 μg/m^3
95–47–6	*o*-Xylene	blood	≥75% of 711	med = 0.11 ppb
100–41–4	Ethylbenzene	blood	≥75% of 631	med = 0.06 ppb
106–46–7	*p*-Dichlorobenzene	blood	≥75% of 1037	med = 0.33 ppb
106–93–4	Ethylene dibromide	breath	3% of 300	GM = 0.4 μg/m^3
107–06–2	Ethylene dichloride	breath	(frequency data not available)	WAGM = 0.19 μg/m^3
108–88–3	Toluene	blood	≥75% of 804	med = 0.28 ppb
108–90–7	Chlorobenzene	blood	21% of 1024	
112–40–3	*n*-Dodecane	breath	30% of 110	GM = 0.19 μg/m^3
123–91–1	*p*-Dioxane	breath	8% of 110	GM = 0.05 μg/m^3
124–18–5	Decane	breath	53% of 110	GM = 0.27 μg/m^3
127–18–4	Tetrachloroethylene	blood	≥75% of 590	med = 0.06 ppb
1120–21–4	Undecane	breath	56% of 110	GM = 0.28 μg/m^3

[1] GM = geometric mean.
[2] Med = median.
[3] WAGM = weighted average geometric mean.

C. Why Have a Pilot of the VCCEP?

EPA is running a pilot of the VCCEP so it can gain insight into how best to design and implement the VCCEP in order to effectively provide the Agency and the public with the means to understand the potential health risks to children associated with exposure to these and ultimately other chemicals to which children may be exposed. EPA intends the pilot to be the means of identifying efficiencies which can be applied to the subsequent implementation of the VCCEP.

Another purpose for running the pilot is the opportunity it will offer to test the performance of the Peer Consultation Process. Peer Consultation as it will apply to the VCCEP pilot is described in Unit III.P. through III.U. A number of stakeholders expressed concern that Peer Consultation may be a lengthy process and require a high commitment of time from those asked to participate. To expedite experience in determining how well the planned Peer Consultation Process works and what efficiencies might be introduced to expedite its work, EPA believes that chemicals which will present Tier 2 and Tier 3 assessment issues at an early point in time would be the most appropriate chemicals to include in the pilot. In selecting the chemicals for the pilot, EPA considered several indications of data availability to identify chemicals which already have extensive available hazard data (or nearly complete hazard data) . Screening level hazard data were considered available if Screening Information Data Set (SIDS) SIDS Initial Assessment Report (SIAR) had been prepared, or if the chemical is in the evaluation phase. Chemicals in the HPV Challenge Program with testing which is to begin in the years 2000 or 2001 were also included in the VCCEP pilot.

The pilot program will be evaluated at its completion as discussed in Unit III.W. The evaluation will consider what

modifications might be made which would make the VCCEP run more efficiently and the recommendations coming out of the pilot program evaluation will be used to improve the subsequent implementation of the VCCEP.

D. What Toxicity Studies Will Be Collected by the VCCEP and Will the Studies Be Divided into Tiers?

The toxicity studies EPA would collect for the VCCEP are the studies listed in Unit II.F. These are the studies EPA believes are appropriate to be included in a core toxicology data set to evaluate the toxicity of chemicals to which children have a significant potential for exposure. These are also the studies the SAP agreed with EPA regarding their inclusion in such a program. The SAP supported the application of this battery of tests as a single tier (Ref. 33). However, during stakeholder discussions, EPA frequently heard comments from various individuals that several of the studies in the test battery should be initiated only after lower level (e.g., HPV Challenge Program) tests and exposure information indicate additional cause for concern. In order to meet the needs of as many of the stakeholders as possible and to ensure the participation of industry sponsors in a voluntary program, testing tiers have been incorporated in the VCCEP. Also, many of the chemicals selected for this voluntary program are sponsored in the HPV Challenge Program and the health effects studies conducted in that Program will satisfy the Tier 1 test requirements of the VCCEP, thereby allowing a resource-saving integration of the VCCEP and the HPV Challenge Program. Table 3 of this unit indicates how the test battery will be divided among three tiers and lists the appropriate guideline for conducting each test.

TABLE 3.—THREE TIERS OF VCCEP TESTS

Tier	Test	Test Guideline
1[1]	Acute oral toxicity (up/down) OR Acute inhalation toxicity	OECD 425 or ASTM E1163–98 OECD 403 or 40 CFR 799.9130
	In vitro gene mutation: Bacterial reverse mutation assay	OECD 471, 870.5100, or 40 CFR 799.9510
	Combined repeated dose toxicity with reproductive and developmental toxicity screens OR Repeated dose oral toxicity AND Reproductive toxicity (1-generation)	OECD 422 OECD 407 OECD 415/421
	In vitro chromosomal aberrations OR *In vivo* chromosomal aberrations OR *In vivo* mammalian erythrocyte micronucleus	OECD 473, 870.5375, or 40 CFR 799.9537 OECD 475, 870.5385, or 40 CFR 799.9538 OECD 474, 870.5395, or 40 CFR 799.9539
2	90-Day subchronic toxicity in rodents	870.3100 (oral), 870.3250 (dermal), 870.3465 (inhalation), or 40 CFR 799.9346 (inhalation)
	Reproduction and fertility effects	870.3800 or 40 CFR 799.9380
	Prenatal developmental toxicity (two species)	870.3700 or 40 CFR 799.9370
	In vivo mammalian bone marrow chromosomal aberrations, OR *In vivo* mammalian erythrocyte micronucleus (triggered off results from *in vitro* mammalian chromosomal aberration test if conducted in Tier 1)	OECD 475, 870.5385, or 40 CFR 799.9538 OECD 474, 870.5395, or 40 CFR 799.9539
	Immunotoxicity	870.7800 or 40 CFR 799.9780
	Metabolism and pharmacokinetics	870.7485 or 40 CFR 799.9748
3	Carcinogenicity OR chronic toxicity/carcinogenicity	870.4200 or 40 CFR 799.9420 870.4300
	Neurotoxicity screening battery	870.6200 or 40 CFR 799.9620
	Developmental neurotoxicity	870.6300 or 40 CFR 799.9630

[1] The tests and test guidelines in Tier 1 are the same as those in the HPV Challenge Program. For example, under the HPV Challenge Program, EPA encourages persons required to conduct testing for chromosomal damage to use the *in vitro* Mammalian Chromosome Aberration Test to generate the needed data unless known chemical properties (e.g., physical/chemical properties, chemical class characteristics) preclude its use. As another example, if not superseded by a higher tier study, EPA recommends the use of the Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test. See HPV Challenge Program web site at http://www.epa.gov/chemrtk/.

For chemicals which are in both the HPV Challenge Program and the VCCEP, sponsors should consider conducting appropriate upper tier VCCEP test(s) instead of the screening studies (such as OECD 422 or OECD 407 and 415/421 studies) included in the HPV Challenge Program to avoid conducting the lower tier studies unnecessarily. For example, if a chemical which was included in the HPV Challenge Program as well as the VCCEP lacked repeated dose testing data, it would be prudent for the sponsor to conduct a 90-day subchronic study to meet the needs of the VCCEP versus the recommended studies under the HPV Challenge program (OECD 422 or 407). Similarly, although the OECD 422 and 415/421 evaluate certain developmental and reproductive endpoints, they do not provide as full

an evaluation of those endpoints as would the Tier 2 VCCEP tests, i.e., the prenatal developmental toxicity test and the 2-generation reproduction and fertility effects test, respectively.

For most tests listed in Table 3, the sponsor may choose among several alternative guidelines developed for different programs including the OECD, OPPTS, TSCA, and the American Society for Testing and Materials (ASTM). All but four of the TSCA test guidelines were published in the July 1, 1999, edition of the Code of Federal Regulations (CFR) at 40 CFR part 799 (Ref. 46). Revisions of the other four TSCA guidelines (40 CFR 799.9130, 799.9537, 799.9630, and 799.9748) will be published shortly in the **Federal Register** and should appear in the July 1, 2001 edition of the CFR. The published TSCA guidelines (Ref. 46) as well as the OECD, OPPTS, and ASTM guidelines (Refs. 47–49) are available for review in the public docket for this notice, OPPTS–00274D. Copies of the guidelines can also be obtained from other sources. OECD test guidelines are available on the Internet at http://www.oecd.org/ehs/guide/index.htm followed by the selection of a specific guideline number. The OPPTS test guidelines in the 870 series are available in hard copy from the Government Printing Office at telephone number (202) 512–0132 and on the Internet in PDF format at http://www.epa.gov/opptsfrs/home/guidelin.htm/. followed by selections for ''870—Health Effects Test Guidelines'' and ''Final Guidelines.'' The TSCA test guidelines are available on the Internet at http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-R/ followed by selections ''Part 799'' and ''Subpart H.'' The ASTM guideline E1163–98 can be purchased online at address http://www.ASTM.org followed by selections ''ASTM Store'' and ''Search for individual standards,'' and entering and selecting ''E1163–98.'' The ASTM test guideline E1163–98 can also be ordered from ASTM, 100 Barr Harbor Dr., West Conshohocken, PA 19428.

During the course of the VCCEP pilot, some of the guidelines listed in Table 3 may be revised by the entity which developed them, i.e., OECD, ASTM, or EPA. If revisions are made, the sponsor may conduct testing according to the guideline in effect on the date the sponsor made a commitment to provide that information or when the relevant test is initiated. Whenever practical, EPA encourages sponsors to use the most up to date guideline.

EPA believes that many of the chemicals selected for the VCCEP and its pilot may have been relatively well tested and therefore a significant amount of both lower and upper tier test data may already exist. Existing upper tier test data will be integrated into the program by having them submitted with Tier 1 information; this is consistent with the approach in the HPV Challenge Program. A possible outcome may be that the existing data may be sufficient such that no further hazard data development is needed at this time.

There may be instances when children have relevant exposures to VCCEP chemicals by multiple routes. EPA believes that needed information should be available on all relevant routes of exposure. In some instances, however, physiologically based pharmacokinetics (PBPK) testing and modeling may enable route-to-route extrapolation and be a possible alternative to multiple route testing. Ultimately, EPA plans to rely heavily on the reports of the third party contractor as described in Units III.P. through III.U. for compiling all scientific issues related to multiple route testing.

E. What Animal Welfare Considerations Have Been Made in the VCCEP?

In designing the VCCEP, EPA has taken several steps to reduce animal testing without unduly compromising the goal of protecting children from chemical hazards. EPA is committed to avoiding duplicative testing, and to reducing, refining, and replacing animal testing when valid alternatives exist. In the United States, EPA works within the framework of the Interagency Coordinating Committee for the Validation of Alternative Methods (ICCVAM), and, internationally, with OECD to ensure the scientific acceptability of alternative test methods. All test methods must be scientifically validated to demonstrate their accuracy before they can be accepted for regulatory and international data sharing purposes. Without such safeguards, tests may need to be repeated, resulting in the use of additional animals. If relevant alternative test methods become validated during the implementation of the VCCEP or its pilot, EPA will consider their immediate implementation in the program. In an effort to avoid duplication of similar tests, Tier 1 of the VCCEP includes testing endpoints which will be satisfied by tests already designated in the HPV Challenge Program.

A key step in reducing the number of animals used for testing is to ensure maximum use of existing data and to combine tests where feasible. To ensure the maximum use of existing data, industry and others are encouraged to search for existing relevant and adequate data and to share sources of such information. Sponsors will, as part of this program, commit to identifying and assessing the adequacy of existing data. To facilitate this effort, EPA has developed guidance under the HPV Challenge Program and will develop additional guidance for this effort as needed. EPA encourages chemical sponsors to combine tests where possible to conserve resources and reduce the number of animals required for testing. An example of two tests which can be combined are the tests for subchronic toxicity and immunotoxicity. Sponsors are also encouraged to consider development of PBPK approaches to evaluate route-to-route extrapolation of test data which also may reduce the need for certain testing.

An important step EPA has taken to address animal welfare concerns was to use chemical selection criteria for the VCCEP pilot which clearly demonstrate that actual exposures to humans are likely to be occurring and for which there is a compelling need for children's health effects data, exposure data, and risk information to be made publicly available. The resulting list of chemicals selected for this pilot program and listed in Table 1 are known to be relatively well characterized. As such, EPA was in a position to focus less on test data development and structure the pilot VCCEP around data evaluation and emphasize the importance of gathering exposure data to support an assessment of the risks of chemicals to children.

The tiered testing design of the pilot program is another feature of the program that is responsive to animal welfare concerns. In the VCCEP pilot, the Tier 2 and Tier 3 testing will be limited to chemicals for which there is a clear need; i.e., Tier 2 and Tier 3 tests will not automatically be required. The need for testing will be considered as part of an overall assessment directed to judging whether the potential hazards, exposures and risks to children have been adequately evaluated. This will be done by EPA in this program and the Agency will be assisted by a deliberative, science-based Peer Consultation process that is intended to ensure that the hazard and exposure information developed via this program will inform the public on a chemical's potential health effects, exposure and risks to children. The Peer Consultation process will also serve as a forum for all stakeholders to provide input on the available hazard and exposure information for each chemical and the need for any additional information.

F. What is the Sequence of Events that Comprise the VCCEP Pilot?

A flow chart (Figure 1) depicts the sequence of events that comprise the VCCEP pilot. Each event is briefly described in Unit III.F.1. through III.F.15. and more fully described in the subsequent sections of Unit III.

1. *Chemical selection.* After receiving feedback on the *Framework Document* (Ref. 31) from various individuals at the April 26–27, 2000, Stakeholder meeting and considering the written comments submitted to the docket and other communications, EPA identified candidate chemicals for the VCCEP and the pilot program. These chemicals are those judged by EPA to present, given the data at hand, the relatively greatest potential for exposures that may impact children. This notice initiates the voluntary program by identifying the test battery, outlining the program, and soliciting Tier 1 sponsorship of the pilot chemicals by their manufacturers and importers.

2. *Tier 1 commitment.* To sponsor a chemical at Tier 1, a company (or consortium) would send a letter to EPA indicating their commitment to handling a chemical under the VCCEP pilot as described in Unit I.C. and D. and Unit IV.B. Tier 1 commitments are requested between January 25, 2001 and June 25, 2001.

3. *Submission of Tier 1 data.* Sponsors (or consortium) would subsequently submit to EPA a Tier 1 Hazard Assessment described in Units III.H. and III.I., a Tier I Exposure Assessment as described in Units III.H., III.J., and III.K., and a Tier 1 Risk Assessment as described in Units III.H. and III.M. A Data Needs Assessment which would describe additional hazard testing and/or exposure data needed to fully evaluate the risks of a chemical to children and, where relevant, prospective parents would also be submitted to EPA as described in Units III.H., III.N., and III.O.

4. *Peer Consultation regarding Tier 2 data needs.* At EPA's request, the third party contractor would periodically convene a Peer Consultation to evaluate the Tier 1 information with emphasis on the Data Needs Assessment. The Peer Consultation would evaluate whether Tier 1 data needs were met by the sponsor's submission and whether the Tier 1 submission fully characterized the chemical's potential risk to children and whether there are remaining Tier 2 data needs. A possible conclusion of the Peer Consultation is that no more work is needed. Results and comments from the Peer Consultation Process will be compiled by the third party contractor and submitted to EPA.

5. *EPA review of Peer Consultation results.* EPA would review the sponsor's submission and the third party contractor report and announce the Tier 2 Data Needs Decision. The sponsor will be informed by mail and the public by the VCCEP web site. If EPA's approach differs substantially from that indicated by the third party report, sponsors and other stakeholders will have 60 days to comment on EPA's determination regarding Tier 2 data needs. EPA, following consideration of comments, will mail its final decision on Tier 2 data needs to the sponsor and announce it on the VCCEP web site.

6. *Tier 2 commitment.* The sponsor would have a period of 4 months after the issuance of EPA's final Tier 2 Data Needs Decision to commit to Tier 2 of the pilot program. This commitment would be made by letter to the Agency as described in Units I.C., I.D., and IV.C.

7. *Development and submission of Tier 2 data.* The sponsor will develop and submit to EPA Tier 2 hazard and exposure data in the form of a revised Hazard Assessment, revised Exposure Assessment, and revised Risk Assessment. The sponsor will also submit a Data Needs Assessment which addresses the need for Tier 3 information. The time allowed for this effort would be based on the time needed to conduct specific tests or exposure studies for each chemical using the guidance provided in Unit III.V., Table 4.

8. *Peer Consultation regarding Tier 3 data needs.* At EPA's request, the third party contractor would periodically convene a Peer Consultation to review the Tier 2 information with emphasis on the Data Needs Assessment. The Peer Consultation would evaluate whether Tier 2 data needs were met by the sponsor's submission and whether the Tier 2 submission fully characterized the chemical's potential risk to children and whether there are remaining Tier 3 data needs. A possible conclusion of the Peer Consultation is that no more work is needed. The results and comments from the Peer Consultation Process will be compiled by a third party contractor and submitted to EPA.

9. *EPA review of Peer Consultation results.* EPA would review the sponsor's submission and the third party contractor report and announce the Tier 3 Data Needs Decision. The sponsor will be informed by mail and the public by the VCCEP web site. If EPA's approach differs substantially from that indicated by the third party report, sponsors and other stakeholders will have 60 days to comment on EPA's decision regarding Tier 3 data needs. EPA, following consideration of comments, will mail its final decision on Tier 3 data needs to the sponsor and announce it on the VCCEP web site.

10. *Tier 3 commitment.* Sponsors would have a period of 4 months after the issuance of EPA's Tier 3 Data Needs Decision to commit to Tier 3 of the pilot program. This commitment would be made by letter to the Agency as described in Units I.C., I.D., and IV.D.

11. *Development and submission of Tier 3 data.* The sponsor will develop and submit Tier 3 hazard and exposure data to EPA in the form of a revised Hazard Assessment, revised Exposure Assessment, and revised Risk Assessment. The time allowed for this effort would be based on the time needed to conduct specific tests or exposure studies for each chemical using the guidance provided in Unit III.V., Table 4.

12. *Peer Consultation of Tier 3 data.* At EPA's request, the third party contractor would periodically convene a Peer Consultation to review the Tier 3 information. The Peer Consultation would evaluate whether Tier 3 data needs were met by the sponsor's submission and whether the Tier 3 submission fully characterized the chemical's potential risk to children. The results and comments from the Peer Consultation Process will be compiled by the third party contractor and submitted to EPA.

13. *EPA review of Peer Consultation results.* EPA would review the sponsor's submission and the third party contractor report and determine if the risk to children has been adequately evaluated. The sponsor will be informed by mail and the public by the VCCEP web site. If EPA's evaluation identifies additional information needs, sponsors and other stakeholders will have 60 days to comment on EPA's decision. EPA, following consideration of comments, will mail its final evaluation to the sponsor and announce it on the VCCEP web site.

14. *Risk communication.* Risk communication in the VCCEP and its pilot is the dissemination of information collected and developed by this program and is further described in Unit III.X.

15. *Risk reduction.* Risk reduction in the VCCEP and its pilot is the follow up action necessary to reduce any identified risk and is further described in Unit III.Y.

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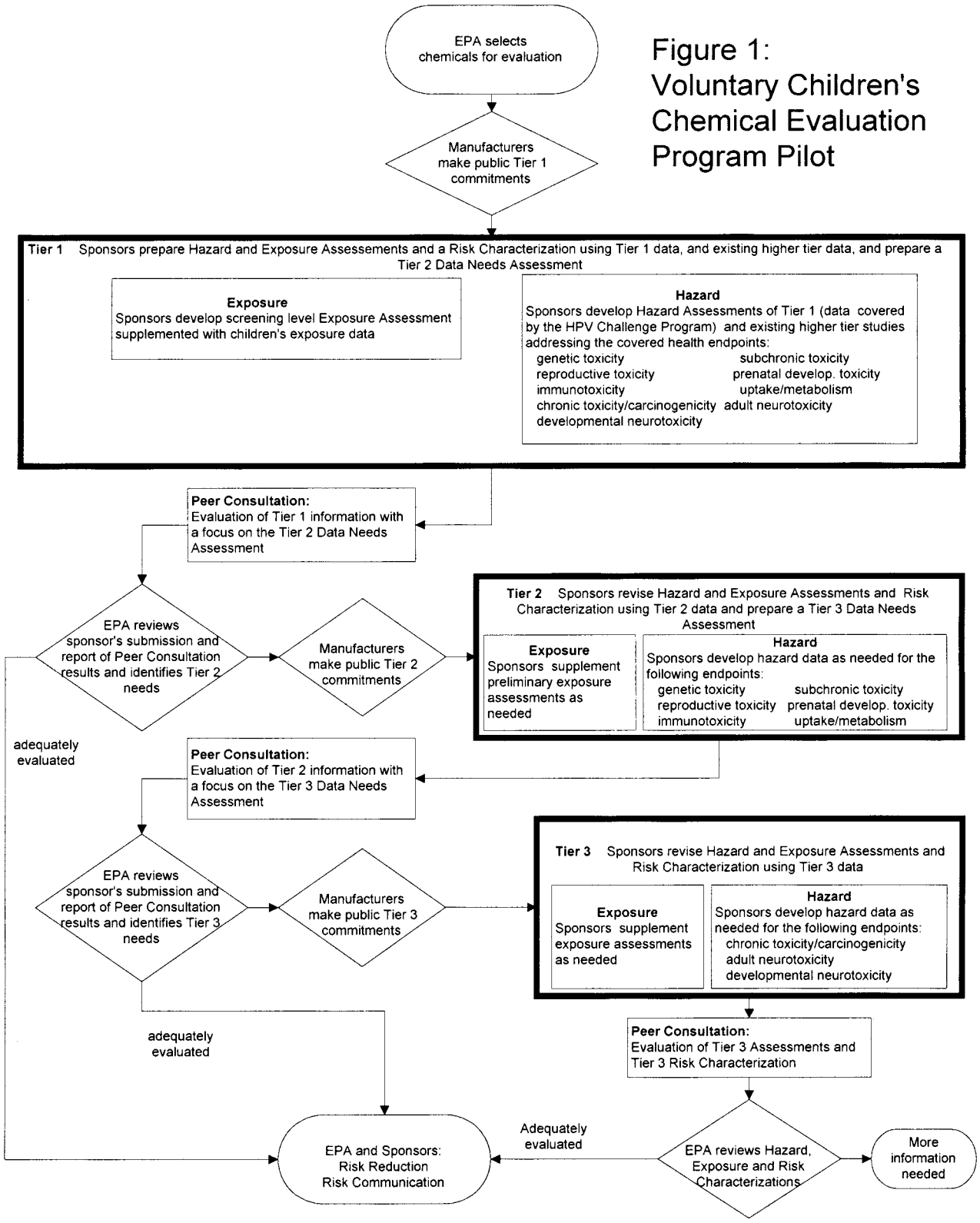

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G. Does a Sponsor Make a Separate Commitment for Each Tier?

For the pilot program, which will address 23 chemicals as explained in Unit III.A., the sponsor will be given the opportunity to commit to one tier at a time. After the completion of the pilot program, EPA will evaluate this aspect of the program and consider whether the multiple commitment procedure and other aspects of the program can be simplified.

H. What Information Must Be Submitted for Each Tier Committed To?

Four types of assessments must be submitted when a company/consortia commits to sponsor a chemical: A Hazard Assessment, an Exposure Assessment, a Risk Assessment, and a Data Needs Assessment. The Hazard, Exposure, and Risk Assessments, which should be consistent with applicable Agency guidelines (Refs. 34 and 41–44), would be submitted at the completion of each of the three tiers while a Data Needs Assessment would only be submitted with Tier 1 and Tier 2 submissions. The Data Needs Assessment submitted with Tier 1 submissions will address the need for Tier 2 data. Similarly, the Data Needs Assessment submitted with Tier 2 submissions will address the need for Tier 3 data. EPA, after reviewing both the sponsor's submission and the report of the third party summarizing the results and comments from the Peer Consultation (described in Units III.P. through III.U.), will announce what data are needed in Tier 2 and Tier 3.

The amount of information in the Hazard, Exposure, and Risk Assessments will increase with each successive tier because, as data are developed with each tier, those data will be used to expand and revise the relevant assessment developed for the previous tier. For example, the Hazard Assessment developed for Tier 2 will contain hazard information on the Tier 2 tests and all the information from the Tier 1 Hazard Assessment, which should be appropriately revised to reflect any new insights provided by the Tier 2 tests. Likewise, the hazard data developed from Tier 3 tests will be considered along with the Tier 2 Hazard Assessment, which will be expanded or revised to produce the Tier 3 Hazard Assessment. Similarly, higher tier Exposure Assessments will build upon Exposure Assessments developed for lower tiers. As Hazard and Exposure Assessments are expanded and revised for each tier so must the Risk Assessments be expanded and revised since they are based on the integration of hazard and exposure data. Because risk assessments define risk in terms of hazard and exposure, additional description of the risk or ''risk characterization'' should be provided to identify the adequacy/limitations/or deficiencies of the hazard and exposure data.

The Data Needs Assessments, which the sponsor will provide with Tiers 1 and Tier 2 submissions, will indicate whether the Tier 1 and Tier 2 Risk Assessments would benefit by additional hazard or exposure data which could be provided by the next tier. These Data Needs Assessments should be influenced by any known limitations or deficiencies of the hazard or exposure data as noted by the risk characterization. The Data Needs Assessment will be used by the Peer Consultation Group when considering whether the risks to children have been adequately assessed and characterized.

I. What Will a Hazard Assessment Contain for Each Tier?

The Tier 1 Hazard Assessment should consist, in part, of summaries of the Tier 1 studies listed in Table 3 in Unit III.D. Sponsors need to determine whether available information already adequately describes a given endpoint and submit summaries of this information. EPA guidance for determining data adequacy has already been provided in the HPV Challenge Program (web site address: http://www.epa.gov/chemrtk). The summaries should follow the guidance for Robust Summaries also provided by the HPV Challenge Program on the same web site. A Robust Summary must include an objective, discussion of methods, results, and conclusions. From a practical standpoint, it is not reasonable to attempt to create an electronic version of full study reports. Instead electronic summaries of full study reports should be prepared that contain the appropriate technical information for that particular endpoint. Guidance on what technical information, on an endpoint-by-endpoint basis, is necessary to adequately describe an experiment or study is also provided on the HPV Challenge Program web site. Robust Summaries should provide sufficient information to allow a technically qualified person to make an independent assessment of a given study report without having to go back to the full study report. If there are existing studies which are equivalent or relevant to any of the upper tier tests listed in Table 3 in Unit III.D., Robust Summaries of these studies should also be submitted with the Tier I Hazard Assessment. Any additional information, such as mechanistic information or SAR, that may influence decisions on further testing needs should also be included.

For a Tier 2 commitment, the sponsor should develop a Hazard Assessment that includes summaries of those Tier 2 studies listed in Table 3 in Unit III.D., which EPA has announced in its Data Needs Decision. In addition to the new hazard data developed for Tier 2, the Tier 2 Hazard Assessment should also contain all the information from the Tier 1 Hazard Assessment, which should be revised as appropriate to reflect new insights provided by the new hazard data developed for Tier 2.

For a Tier 3 commitment, the sponsor should develop a Hazard Assessment that includes summaries of those Tier 3 studies listed in Table 3 in Unit III.D., which EPA has announced in its Data Needs Decision. In addition to the new hazard data developed for Tier 3, the Tier 3 Hazard Assessment should also contain all the information from the Tier 2 Hazard Assessment, which should be revised as appropriate to reflect new insights provided by the new hazard data developed for Tier 3.

J. What Will an Exposure Assessment Contain?

An Exposure Assessment should contain information to answer the following questions for a particular chemical:

- Who and how many people are exposed?
- What are the sources of exposure, i.e., environmental releases, consumer products, etc.?
- Does the exposure occur through breathing air, drinking water, eating food, contact with skin, or any other routes?
- How intense is the exposure, i.e., what is the potential dose level?
- How often and for how long does exposure occur, that is, what is its frequency and duration?

The populations of concern to this program are children and, in certain situations, prospective parents. Exposures that can affect children are those which occur prior to conception (to either parent), during prenatal development, and postnatally to the age of sexual maturation which is completed around 18–21 years of age (Ref. 33). Although adult exposures are not intended to be a major focus of this program, certain risks to children cannot be assessed without evaluating parental exposures. Specifically, prospective parents' exposure is relevant to an evaluation of risks due to fertility and reproductive effects, as well as developmental effects from in utero exposures. Children can be exposed to chemicals through food and drinking water, through indoor and outdoor air, through ingestion of dust and soil, and through direct contact with products they use and products used in their immediate vicinity. Prospective parents can be exposed to chemicals through these pathways as well as through occupational activities.

The information in a complete Exposure Assessment should be representative and encompass

manufacturing, processing, and use. If existing data are submitted, they may include non-TSCA uses, but if new data are developed they should focus on exposure data from TSCA uses. Following are the specific types of information which should be submitted in an Exposure Assessment:

- Identification of all potential manufacturing and processing activities associated with the chemical that can lead to exposure to children or, where relevant, prospective parents. It is appropriate to evaluate a prospective parent's exposure if it is relevant to determining the need for higher tier developmental and reproductive toxicity studies.
- Identification of all potential uses (industrial, commercial, consumer) of the chemical and activities associated with these uses that may lead to exposure to children or, if appropriate, prospective parents.
- Measures or estimates of exposure to children (including significant subpopulations) or, where relevant, prospective parents.
- Measures or estimates of environmental releases from all activities and exposures resulting from these releases.
- Identification of relevant activity patterns, age ranges and subpopulations associated with activities that can lead to exposures.
- Physical/chemical properties and environmental fate characteristics.
- Review and analysis of relevant existing environmental and biological monitoring data.
- Documentation of all measured data, scenarios, assumptions, and estimation techniques.

Exposure Assessments should be developed using EPA's Exposure Assessment Guidelines (Ref. 34) as well as other existing exposure assessment procedures and guidance. EPA's National Center for Environmental Assessment (NCEA) is preparing a document entitled *Child-Specific Exposure Factors Handbook* which consolidates all child exposure factors and related data in one document. A draft copy (Ref. 39) is available on the NCEA website (http://www.epa.gov/ncea/csefh2.htm) and the final document should be available in the near future. The exposure information that is provided for the VCCEP must be transparent and must address the completeness of the assessment, i.e., how complete is the assessment in terms of addressing sources, populations, pathways, and routes of exposure to children. It is desirable for the exposure information from different sponsors to be provided in a consistent manner. EPA will work with stakeholders to develop a template that sponsors can use to provide exposure information. We anticipate the template will provide a format for reporting the results of exposure studies, e.g., exposure ''robust summaries.'' The template will also include sections that address the completeness of the assessment, the overall results and conclusions, the data gaps, and the need for further data and assessment. EPA encourages collaboration among sponsor companies and when necessary, between sponsor and non-sponsor companies, in order to ensure that exposure information encompasses all relevant activities, including activities outside the immediate knowledge and control of the sponsor companies.

Sponsors will bear a special responsibility in defining and describing the essential exposure issues associated with each chemical included in the program. Because the biomonitoring data used in selecting chemicals for this program are a strong indicator of human exposure, arguments to discontinue testing based on conclusions of no or low exposure must be supported by convincing analysis and thorough documentation. Refuting the biomonitoring data used for candidate chemical identification does not constitute exposure assessment and will not be considered a sufficient assessment. Similarly, complete reliance on the biomonitoring data for an exposure assessment, given the quality concerns raised by stakeholders, would be insufficient.

There may be certain cases, however, where evaluation of hazard data alone may appear warranted. In these cases, the sponsor should explain why exposure data have not been included, and should understand that the Peer Consultation Group and EPA may, in the absence of exposure data, conclude that upper tier testing and exposure data development are warranted.

K. What Should the Tier 1 Exposure Assessment Contain?

At a minimum, the Tier 1 Exposure Assessment should contain screening level (or, if available, better) information on exposure from manufacturing supplemented with relevant screening level data on downstream processing and use activities and specific information on children's exposures, if available. A screening level exposure assessment should generate conservative, quantitative estimates of exposure. The screening approach generally involves using readily available measured data, existing release and exposure estimates and other exposure-related information. Where actual measures of exposure are not available, the use of models may be necessary. For example, a screening-level model for ambient air exposure which uses the assumption that the exposed populations live near the chemical release locations is often used in EPA screening level assessments. An appropriately conservative screening level assessment can also help to rule out certain exposure concerns and set priorities for more detailed evaluation of the remaining concerns.

L. What Should Tier 2 and 3 Exposure Assessments Contain?

Tier 2 Exposure Assessments will be more advanced assessments that develop more accurate estimates of exposure and will generally focus on the higher priority exposures identified in the Tier 1 screening assessment. An advanced Exposure Assessment should quantify central tendency (e.g. median, geometric mean) and high end (i.e., greater than 90^{th} percentile) exposures. Representative, well designed monitoring studies of known quality are the ideal. Higher tier exposure models may also be used in advanced assessments when appropriate measured data are unavailable. When higher tier models are used, every effort should be made to obtain accurate input data. For example, a higher tier model for ambient air exposure may use facility-specific parameters for emission rates, such as stack height and the exact size and location of the exposed population. Tier 2 assessments should also more specifically address exposures relevant to Tier 2 health testing endpoints. Similarly, Tier 3 Exposure Assessments would further develop Tier 1 and 2 exposure data and more specifically address exposures relevant to Tier 3 health testing endpoints.

M. What Will a Risk Assessment Contain?

The Risk Assessment should follow the guidance provided in EPA's risk assessment (Refs. 41–44) and exposure assessment guidelines (Refs. 34 and 39) which can be found at http://www.epa.gov/ncea. The Risk Assessment must integrate the Hazard and Exposure Assessments, and characterize the risks to children and, where relevant, prospective parents by indicating the adequacy, limitations, and/or deficiencies of the existing data for this purpose. Guidance for characterizing risk will be provided in EPA's *Risk Characterization Handbook* (Ref. 45) which should be available in the near future, at which time it will be on web site http://www.epa.gov/ORD/

spc/2riskchr.htm. The risk characterization should summarize key aspects of the following components of the risk assessment:

• Qualitative conclusions about the likelihood that the chemicals may pose a specific hazard to children or, where relevant, prospective parents, the nature of the observed effects, under what conditions (route, dose levels, time, and duration) of exposure these effects may occur, and whether the health effects-related data are sufficient and relevant to use in a risk assessment.

• A discussion of the dose-response patterns of the effects, the relationship among various endpoints and toxicities, the rationale behind the determination of the No Observed Adverse Effect Level (NOAEL), Lowest Observed Adverse Effect Level (LOAEL), and/or benchmark dose, the underlying assumptions, and the implications of using alternative assumptions.

• Descriptions of the sources and pathways of exposure, estimates of the range of human exposure (e.g., central tendency, high end), the route, duration, and pattern of exposure, relevant PK aspects, and the size and characteristics of the population exposed. The strengths and weaknesses of the risk assessment.

• The areas of uncertainty and the potential impact on the assessment.

• The potential impact of missing or inadequate hazard or exposure information.

For a Tier 1 commitment, the sponsor will develop a Risk Assessment which integrates Tier 1 Hazard and Exposure Assessments and characterizes the risk based on the quality and extent of those data. As noted earlier, the Hazard Assessment development for Tier 1 will include existing data from Tier 1 and higher tiers.

The Tier 2 Risk Assessment will integrate the Hazard and Exposure Assessments developed for Tier 2 and characterize the risk based on the quality and extent of those data. As noted earlier, the Hazard and Exposure Assessments developed for Tier 2 include the new data developed for Tier 2 and all the information in the relevant Tier 1 assessments which may be revised based on new insights provided by the data developed for Tier 2.

The Tier 3 Risk Assessment will integrate hazard and exposure assessments developed for Tier 3, and characterize the risk based on the quality and extent of those data. As noted earlier, the Hazard and Exposure Assessments developed for Tier 3 include the new data developed for Tier 3 and all the information in the relevant Tier 2 assessments which may have been revised based on new insights provided by the data developed for Tier 3.

N. What Will a Data Needs Assessment Contain?

A Data Needs Assessment identifies the additional hazard and/or exposure information needed to adequately assess the potential risks to children and, where relevant, prospective parents. The sponsor should be familiar with current requirements of test guidelines listed in Table 3 and consider to what degree the available hazard information covers current data needs. In situations where adequate data may be lacking for a particular hazard endpoint, the sponsor should consider what impact these limitations may have on the ability to adequately evaluate the potential hazards. The sponsor should consider to what degree the potential exposures to children from environmental releases and uses of the chemical have been accounted for and addressed. In situations where there are gaps in the evaluation of exposure, the sponsor should consider the impacts that these limitations, along with limitations in the hazard data, may impose on the ability to evaluate the risks to children. The sponsor should consider what hazard and exposure information could be provided by the next tier (e.g., Tier 2) and use a weight-of-the-evidence evaluation of Tier 1 hazard and exposure information to develop recommendations regarding needed work. The sponsor should provide the scientific rationale for any needed work in these areas in the next tier. The sponsor should also provide the scientific rationale for any hazard studies that are not recommended within that tier.

In meeting a Tier 1 commitment, the sponsor will develop an assessment of the need for Tier 2 hazard and exposure information. In meeting a Tier 2 commitment, the sponsor will develop an assessment of the need for Tier 3 hazard and exposure information. A Data Needs Assessment will not be required to be submitted with Tier 3 information.

O. What Will Be Considered when Preparing and Evaluating the Data Needs Assessment?

To evaluate what Tier 2 or Tier 3 information is needed, the Hazard, Exposure, and Risk Assessments from the previous tier will be considered. The need to conduct Tier 2 or Tier 3 toxicity tests and exposure studies for a specific chemical would be based on a judgement that the potential hazards, exposures, and risks to children and, where relevant, prospective parents have not been adequately evaluated by the lower tier assessments. The starting point for this judgement would be based on a weight-of-the-evidence evaluation of the Tier 1 hazard and exposure data prepared by the sponsor addressing the chemical's potential for hazards, exposures and risks to children and, where relevant, prospective parents. Of primary importance in this judgment is the risk characterization which notes any known limitations or deficiencies of the hazard and exposure data. If there is existing upper tier data, they will also be included in the evaluation. If the Tier 1 data are believed to adequately evaluate a chemical's potential hazard, exposure, and risk to children and, where relevant, prospective parents, Tier 2 hazard and exposure studies would not be pursued. Similarly, if the Tier 1 and Tier 2 data are believed to adequately evaluate a chemical's potential risks to children and, where relevant, prospective parents, Tier 3 hazard and exposure studies would not be pursued.

P. What is Peer Consultation and Why is it Included in VCCEP?

For the VCCEP, the purpose of the Peer Consultation Process is to provide a forum for scientists and relevant experts from various stakeholder groups to exchange views on the sponsor's Assessments and in particular on the recommended data needs and to provide these views to a third party contractor. The Peer Consultation Group will be asked to discuss whether the potential hazards, exposures, and risks to children have been adequately evaluated and to provide scientific input on the hazard and exposure data needs. It is not intended to be a consensus based process, but should identify areas of agreement, disagreement, and the supporting scientific rationale. An independent third party contractor will compile the results and comments from the Peer Consultation and submit a report to EPA.

After considering the sponsor's submission and the report of the third party contractor, EPA will announce what data from the next tier are needed. If EPA's approach differs substantially from that indicated by the third party report, EPA will provide a supporting rationale indicating the basis for its approach. Stakeholders will have 60 days to comment. EPA will consider these comments and then issue a final decision.

Q. How Does Peer Consultation Differ from Peer Review?

The key distinctions between peer consultation and peer review are the independence of the peer reviewers and their level of involvement. The goal of formal peer review is to obtain an independent, third-party review of a product. In contrast, peer consultation provides an opportunity to solicit input and comments from stakeholders on a scientific document. Depending on the nature of the peer consultation, this input could involve an interaction during the development of an evolving work product. Alternatively, it may involve solicitation of comments on a draft document. EPA's Science Policy Council has published the Peer Review Handbook (Ref. 51) that provides guidance on formal external peer review and informal peer consultation.

R. Who Prepares the Peer Consultation Documentation and What Must It Contain?

The sponsor is responsible for preparing the documentation for review by the Peer Consultation. A separate Peer Consultation Document will be prepared for each tier and should consist of four sections. The first section should provide the Hazard Assessment and robust summaries of all available hazard information (e.g., Tier 1 plus any available Tier 2 and Tier 3 data) including relevant toxicology studies as well as any additional information (i.e., mechanistic data, SAR) that may influence decisions on data needs. The second section is the Exposure Assessment which provides and characterizes the relevant exposure information available on the chemical. The third section is the Risk Assessment which indicates the potential health risk of exposure to the chemical for children and, if appropriate, prospective parents based on available hazard and exposure data, and also indicates whether the risk has been adequately evaluated. Finally, the last section is the Data Needs Assessment which summarizes the hazard and exposure data needs, as appropriate, with respect to achieving an adequate set of data for risk assessment. The sponsor should provide the scientific rationale for any needed work in these areas in the next tier. The sponsor should also provide the scientific rationale for any hazard studies that are not recommended within that tier. In a similar manner, the sponsor should provide the scientific rationale for the recommendations related to meeting exposure information needs in the next tier. It is recognized that this section may also include a recommendation of low priority for further work, which should also be supported by a scientific rationale. For each tier to which the sponsor has made a commitment, the sponsor will submit three hard copies and an electronic copy of a Peer Consultation Document to EPA. EPA will make the document available to the public and the third party contractor.

S. Who Will Participate in the Peer Consultation Group?

Because the goal of the Peer Consultation Process is to contribute to the review of a scientific work product, it should not be conducted as a mechanical evaluation step. To ensure this outcome, the Peer Consultation Group should be comprised of scientific experts with extensive and broad experience in toxicity testing and exposure evaluations, such that members will have sufficient technical expertise to make meaningful contributions to science-based evaluations. The membership of the Peer Consultation Group will likely vary somewhat for each chemical reviewed. To ensure consistency among reviews, there will be a balanced ''core'' group that consists of scientists from interested stakeholder groups, including EPA scientists and scientists representing industry, academia, children's health, public health, environmental, and animal welfare organizations. This group will be involved in the review of all chemicals. In addition, there should be a group of experts that will be invited to participate on a case-by-case basis to provide additional expertise relevant to a specific chemical or issue. This could include experts in specific toxicology disciplines, experts in exposure, or experts in a specific chemical. The Peer Consultation Group for a specific chemical is therefore likely to be composed of the core group and invited experts.

T. How Will the Peer Consultation be Conducted?

An external, third party scientific organization will be contracted to be responsible for arranging the Peer Consultation meetings, inviting experts, and facilitating the meetings. Stakeholders will be given an opportunity to suggest appropriate invited experts, but the selection will be made by the third party. The third party will also be responsible for addressing potential conflicts of interest in the membership of the Peer Consultation.

The sponsor will provide three hard copies and one electronic copy of the Peer Consultation Document to EPA. EPA will make the Document available to the third party contractor and to the public in the TSCA NCIC docket and announce its availability on the VCCEP web site. The third party contractor will be responsible for distributing the Document to the Peer Consultation Group. The sponsor will present the Assessments and recommendations in the Peer Consultation Document to the Peer Consultation Group and participate in the Group's deliberations to the extent of answering any questions about the Assessments and offering clarifications. The focus of the meetings will be the Data Needs Assessment section of the Document.

The Peer Consultation Group should review the Assessments prepared by the sponsor with particular emphasis on the sponsor's recommendation for developing additional data. The Peer Consultation Group should take a weight-of-evidence approach that considers all the available toxicity and exposure information. A weight-of-evidence evaluation can include, but not be limited to, consideration of the quality of the data, the resolving power of the studies, the number and types of endpoints examined, the relevance of the dose levels, route, timing, and duration of exposures, the appropriateness of dose selection, the replication of effects, statistical and/or biological significance of effects, the adequacy of the exposure information, and the relevance of the exposure scenario to the toxicology endpoints of concern. Sound scientific judgment is the foundation for the weight-of-evidence evaluation.

The results of the Peer Consultation Process should be the individual opinions of the members of the Peer Consultation Group regarding necessary follow up toxicity testing and/or exposure information within the context of the tiered evaluation framework. If specific toxicity studies are indicated, they should be chosen from the next tier of studies within the overall framework and should allow flexibility, if possible, to pursue either additional toxicity testing and/or exposure evaluation, allowing sponsors to select the option which will most quickly, directly, and cost-effectively reduce uncertainty and allow the creation of a risk assessment. If the opinions of the Peer Consultation Group are that no additional work is needed based on low priority of current concern, that would also be acceptable.

Peer Consultation meetings and deliberations will be open to the public. Interested parties who are not part of the Peer Consultation Group will have the opportunity to provide written and/or oral comments and information at the

appropriate time during the Peer Consultation meeting. EPA will ensure that the public and interested stakeholders are adequately notified of upcoming Peer Consultation meetings. If stakeholders express an interest, EPA will consider conducting these Peer Consultation meetings at locations other than Washington, DC. Meeting announcements will include information on the meeting agenda and meeting location.

At the end of the meeting, the results of the Peer Consultation will be compiled by the third party contractor and distributed to the Peer Consultation group to check for accuracy. The third party contractor will then submit this report, which will include a summary of significant written and verbal comments from outside parties and any third party comments, to the sponsor and EPA. EPA will place the report in the public record in the TSCA NCIC docket.

EPA will use the third party report in forming its decision regarding additional data needs. EPA will mail its Data Needs Decision to the sponsor and announce it on the VCCEP web site. If EPA's approach differs substantially from that presented in the third party contractor report, EPA will provide a supporting rationale which indicates the basis for its decision. Stakeholders will have 60 days to comment on the decision; all comments will be placed in the public docket. EPA will consider the stakeholders' comments and then make a final decision which will be mailed to the sponsor and announced on the VCCEP web site.

U. What Guidance is Provided for the Peer Consultation Process?

The third party contractor will provide the members of the Peer Consultation Group with a series of documents that will provide Agency guidance. This will include EPA's TSCA (Ref. 46) and OPPTS test guidelines (Ref. 47), OECD test guidelines (Ref. 48), ASTM guideline (Ref. 49), EPA's exposure assessment guidelines (Refs. 34 and 39), EPA's risk assessment guidelines (Refs. 41–44), EPA's Risk Characterization Handbook (Ref. 45), EPA's Peer Review Handbook (Ref. 51), and this **Federal Register** notice. The report entitled *Retrospective Validation of Tiered Toxicity Testing Triggers* (Ref. 2, Attachment D) prepared by the Chemical Manufacturers Association (CMA), now known as the American Chemistry Council (ACC), may also provide information to assist in the evaluation.

The Peer Consultation Group will assess the sponsor's prepared Assessments for technical adequacy, proper documentation, and satisfaction of established specifications. The Peer Consultation Group should also determine if the Assessments adequately present assumptions, calculations, supporting documentation, extrapolations, alternative interpretations, methodology, acceptance criteria, as well as other conclusions.

V. What Time Will be Allowed to Complete Each Tier?

After the sponsor has made a commitment to a particular tier, EPA believes there is a certain amount of time which is sufficient to collect information, conduct testing, obtain exposure information, and prepare a report. The amount of time necessary will depend on the nature of the toxicology and exposure information that is being developed. For toxicology studies, the amount of time that may be needed is presented in Table 4 of this unit. These times assume that tests within the same tier will be run concurrently. The time allowed to submit the information for a particular tier will be determined by consideration of the test in that tier requiring the greatest number of months to complete and the estimated time demands for any exposure studies. An additional 4 months of time may be requested by the sponsor to prepare one or more of the following: The Exposure Assessment, Risk Assessment, and Data Needs Assessment.

TABLE 4.—TIME ALLOWED TO CONDUCT TOXICOLOGY TEST AND PREPARE FINAL REPORT

Test	Months
Acute oral toxicity (up/down) OR Acute inhalation toxicity	18
In vitro gene mutation: Bacterial reverse mutation assay	18
In vitro chromosomal aberrations	18
90-Day subchronic in rodents	18
Reproduction and fertility effects	29
Prenatal developmental toxicity (two species)	12
In vivo mammalian bone marrow chromosomal aberrations, OR *In vivo* mammalian erythrocyte micronucleus	16
Immunotoxicity	12[1]
Metabolism and pharmacokinetics	12
Carcinogenicity OR	60
Chronic toxicity/carcinogenicity	
Neurotoxicity screening battery	21
Developmental neurotoxicity	21

[1] If the test for immunotoxicity is run as a satellite of another study, the final report would be due on the reporting date of the other study.

W. How Will the VCCEP Pilot Program be Evaluated?

Evaluation of the pilot program is critical to the success of the VCCEP. The evaluation will consider what modifications might be made which would make the VCCEP run more efficiently. One efficiency that might be introduced into the program is requesting the sponsor to commit to more than one tier at a time. Experience gained from the pilot may indicate whether it is best to run the program with commitments at each tier, e.g. three commitments, or to run the program with two commitments, i.e., to Tier 1 and to Tiers 2/3. The evaluation of the pilot program will also look at the time frames allowed for sponsor commitment which for the pilot is 6 months to commit to Tier 1, 4 months to commit to Tier 2, and 4 months to commit to Tier 3. At this time, EPA expects to evaluate the pilot at 3 and 6 years after its initiation.

A key feature in the evaluation of the pilot program will be an objective evaluation of the performance of the Peer Consultation Process and its results. The evaluation will be organized and conducted by EPA, but representatives of the third party contractor and stakeholders will be consulted.

Questions to address in evaluating the Peer Consultation Process should include, but not necessarily be limited to, the following:

- Has the Peer Consultation Process been open and transparent?
- Has the Peer Consultation Process been efficient? If not, what improvements could be made?
- Does the evaluative process provide a scientifically rigorous and effective means for developing results and comments from Peer Consultation and for assisting EPA in developing decisions?
- Has the Peer Consultation Group adequately considered both toxicology and exposure information in developing its results?

• Have the communications related to the Peer Consultation Process, activities and outcomes been effective and have they facilitated public understanding and use of the information generated from this process?

EPA believes that the VCCEP pilot presents a unique opportunity for EPA, the chemical industry, and other stakeholders to demonstrate that they can jointly manage, participate in, and generate results in an in-depth hazard, exposure, and risk assessment program. While the focus of this pilot is on chemicals that may have potential health effects on children, EPA believes that the process to be evaluated in the pilot may have broader applications in the future. For example, it may present a mechanism to follow up on chemicals that are of concern based on information developed in the HPV Challenge Program. In the event that there is little participation in the pilot or if the activities under the pilot are unnecessarily drawn out and resource inefficient, EPA will evaluate whether its TSCA chemicals programs should revert to a more conventional regulatory approach, especially with regard to test rules under TSCA section 4 or other regulatory actions.

X. How Will the Data Resulting from the VCCEP and its Pilot be Provided to the Public?

Because the chemicals selected for the VCCEP are believed to have widespread potential for exposures to both children and prospective parents, EPA believes that the availability of the information that will be developed as a result of this program is vitally important so that government, industry, and the public can understand potential chemical hazards, exposures, and risks posed to the nation's children.

EPA will announce on the VCCEP web site the public availability in the TSCA NCIC of the Hazard Assessments, Exposure Assessments, Risk Assessments, and Data Needs Assessments developed for this program. It will similarly provide access to EPA's communications with sponsors and the reports of the third party contractor who will compile the results and comments from the Peer Consultation. Stakeholders will also be involved in contributing to follow up communication of risk information developed by this program.

Y. How Will the Information Submitted for the VCCEP and its Pilot be Used by EPA?

When data and other information generated from this program become available, EPA will utilize a risk-based, scientifically sound process to make decisions on the need for further information gathering or risk reduction action. All stakeholders to this process will be involved in contributing to follow up actions that result from information developed by this program. The sponsor and other stakeholders will be provided adequate notice and a reasonable opportunity to comment should EPA perceive the need to initiate risk reduction actions based on that data.

IV. Volunteering for the VCCEP Pilot

A. What are My Legal Obligations If I Volunteer for the VCCEP or its Pilot?

If a company volunteers to sponsor a chemical in the VCCEP or its pilot it has made a voluntary commitment to develop hazard and exposure data on a specific chemical in the program consistent with EPA's Chemical Right-to-Know Initiative. Commitments are not enforceable agreements or contracts. Sponsors may withdraw their sponsorship of a chemical at any time with the understanding that EPA may then exercise its authority to require testing under TSCA where appropriate. Where a chemical is currently being sponsored under VCCEP or its pilot, the Agency will take this into consideration when considering taking actions under TSCA section 4.

B. How do I Volunteer to Sponsor My Chemical at Tier 1 of the Pilot?

To sponsor a chemical at Tier 1, a company (or consortium) would forward a letter to EPA indicating their commitment to handling the chemical under the VCCEP pilot. This commitment letter should be submitted between January 25, 2001 and June 25, 2001. The commitment letter must identify the chemical by name and CAS No., include a technical contact per Unit I.D. (and member companies for consortia), commit to starting development of Tier 1 hazard and exposure data described in Units III.H., III.I., III.J., and III.K. within 6 months after the end of the sign up period, and include the anticipated start date and submission date to EPA of Tier 1 information.

For purposes of the VCCEP, Tier 1 includes the hazard endpoints found in the HPV Challenge as well as any existing Tier 2 or Tier 3 hazard data. Sponsors are encouraged to begin efforts under the VCCEP within 6 months after the end of the sign up period, but may opt to delay the start year for developing Tier 1 hazard and exposure data to be consistent with the commitment made to the HPV Challenge Program. Also, new testing of individual chemicals (i.e., those HPV chemicals not proposed for testing in a category) shall be deferred until November 2001 (Ref. 40). In these cases, Tier 1 data (as described above) should be provided in January of the start year.

Sponsors or consortia making a Tier 1 commitment for a specific chemical would agree to:

1. Sponsor the chemical in Tier 1.
2. Develop a Hazard Assessment of Tier 1 (existing and new studies as needed) studies and existing higher tier hazard studies, as described in Units III.H. and III.I.
3. Develop an Exposure Assessment, Risk Assessment, and a Data Needs Assessment as described in Units III.H., III.J., III.K., III.M., III.N., and III.O.
4. Prepare a Peer Consultation Document as described in Unit III.R. and provide three hard copies and an electronic copy to EPA. EPA will make the Document available to the public and the third party contractor.
5. Make a good faith effort to start and finish all work in a timely manner and within the time period specified.
6. Make all hazard and exposure data developed for this program publicly available.
7. Judge existing hazard studies not conducted per Good Laboratory Practices (GLPs) guidelines based on their merits.
8. Generate any new hazard data using GLPs and test guidelines in Table 3 of Unit III.D.
9. Develop exposure data that is representative of known exposure scenarios and is of known quality.
10. Cooperate with other potential sponsors in facilitating the formation of consortia.

C. How do I Volunteer to Sponsor My Chemical at Tier 2 of the Pilot?

To sponsor a chemical at Tier 2, a company (or consortium) would forward a letter to EPA indicating their commitment to handling the chemical under Tier 2 of the VCCEP pilot. The commitment letter must identify the chemical by name and CAS No., include a technical contact per Unit I.D. (and member companies for consortia), commit to starting development of Tier 2 hazard and exposure data described in Units III.H., III.I., III.J, and III.L. no later than 6 months after the end of the sign up period, and include the anticipated start date and submission date to EPA of Tier 2 information. Tier 2 commitments should be made by sponsor companies within 4 months of the issuance of EPA's Tier 2 Data Needs Decision.

Sponsors or consortia making a Tier 2 commitment for a specific chemical would agree to comply with the guidance in Unit IV.B.4. through 10. as well as the following:

1. Sponsor the chemical in Tier 2.

2. Develop a Hazard Assessment of Tier 2 (existing and new studies as needed) studies and existing higher tier hazard studies, as described in Units III.H. and III.I.

3. Develop an Exposure Assessment, Risk Assessment, and a Data Needs Assessment as described in Units III.H., III.J., III.L., III.M., III.N., and III.O.

D. How do I Volunteer to Sponsor My Chemical at Tier 3 of the Pilot?

To sponsor a chemical at Tier 3, a company (or consortium) would forward a letter to EPA indicating their commitment to handling the chemical under Tier 3 of the VCCEP pilot. The commitment letter must identify the chemical by name and CAS No., include a technical contact per Unit I.D. (and member companies for consortia), commit to starting development of Tier 3 hazard and exposure data described in Units III.H., III.I., III.J., and III.L. no later than 6 months after the end of the sign up period, and include the anticipated start date and submission date to EPA of Tier 3 information. Tier 3 commitments should be made by sponsors within 4 months of the issuance of EPA's Tier 3 Data Needs Decision.

Sponsors or consortia making a Tier 3 commitment for a specific chemical would agree to comply with the guidance in Unit IV.B.4. through 10. as well as the following:

1. Sponsor the chemical in Tier 3.

2. Develop a Hazard Assessment of Tier 3 (existing and new studies as needed) studies, as described in Units III.H. and III.I.

3. Develop an Exposure Assessment and Risk Assessment as described in Units III.H., III.J., III.L., and III.M.

V. Identification of Manufacturers and Importers of Pilot VCCEP Chemicals

When CBI is not an issue, EPA will assist in identifying the manufacturers and importers. A list of VCCEP pilot chemicals and non-CBI manufacturers and importers who reported to the 1998 IUR is included in Ref. 36. Similar information is available from the HPV Challenge Program web site on manufacturers and importers of HPV chemicals reporting under the 1990 and 1994 IURs. EPA encourages all companies that manufacture or import a selected chemical to share the responsibility of supporting this program.

VI. Tracking VCCEP Pilot Sponsor Commitments and Performance

Public confidence in the successful outcome of this voluntary program and ongoing participation by the sponsors are both enhanced by the public's ability to follow the program's progress as it occurs. EPA will maintain a database on its web site which will list the sponsor commitments. Information in the tracking database will include:

- CAS No. and name of the chemical.
- Sponsors and any consortia involved.
- Expected and actual start date and submission date to EPA for Tier 1 information.
- Third party contractor report on the results and comments from Peer Consultations and EPA's Data Needs Decisions for Tier 2 and Tier 3.
- Status of Tier 2 and Tier 3 commitments.
- Expected and actual start date and submission date to EPA for Tier 2 and Tier 3 information.

VII. Schedule for the VCCEP Pilot

The schedule goals for the VCCEP pilot are as follows:

- Receive Tier 1 commitments to the VCCEP pilot between January 25, 2001 and June 25, 2001.
- Sponsors initiate any needed studies within 6 months after the end of the sign up period.
- Sponsors complete needed studies within the time period specified in Table 4 of Unit III.V., unless they have requested an extension of up to 4 months to prepare one or more of the following assessments: Exposure Assessment, Risk Assessment, and Data Needs Assessment.
- Make all Tier 1 Assessments publicly available within 1 month of receipt by EPA.
- Peer Consultation reviews Tier 1 Assessments, third party contractor compiles results and comments, and sends report to EPA.
- EPA announces the Tier 2 Data Needs Decision.

1. 60-Day comment period if Decision differs substantially from what is presented in the third party contractor's report.

2. EPA announces the final Tier 2 Data Needs Decision.

- Receive Tier 2 commitments within 4 months of the final Tier 2 Data Needs Decision.
- Sponsors initiate any needed studies within 6 months after the end of the sign up period.
- Sponsors complete needed studies within the time period specified in Table 4 of Unit III.V., unless they have requested an extension of up to 4 months to prepare one or more of the following assessments: Exposure Assessment, Risk Assessment, and Data Needs Assessment.
- Make all needed Tier 2 Assessments publicly available within 1 month of receipt by EPA.
- Peer Consultation reviews Tier 2 Assessments, third party contractor compiles results and comments, and sends report to EPA.
- EPA announces the Tier 3 Data Needs Decision.

1. 60-Day comment period if Decision differs substantially from what is presented in the third party contractor's report.

2. EPA announces the final Tier 3 Data Needs Decision.

- Receive Tier 3 commitments within 4 months of the final Tier 3 Data Needs Decision.
- Sponsors initiate any needed studies within 6 months after the end of the sign up period.
- Sponsors complete needed studies within the time period specified in Table 4 of Unit III.V., unless they have requested an extension of up to 4 months to prepare one or more of the following assessments: Exposure Assessment, Risk Assessment, and Data Needs Assessment.
- Make all needed Tier 3 Assessments publicly available within 1 month of receipt by EPA.
- Peer Consultation reviews Tier 3 Assessments, third party contractor compiles results and comments, and sends report to EPA.
- EPA announces its evaluation of Tier 3 data.

1. 60-Day comment period if EPA identifies additional information needs.

2. EPA announces the final evaluation of Tier 3 data.

- Evaluation of pilot program.
- Initiate any necessary Risk Reduction and Risk Communication after review of final Risk Assessment.

VIII. References

The following references are available for inspection in the TSCA NCIC under docket control number OPPTS–00274D.

1. Amvac Chemical Corporation. Comments on the Framework Document for the VCCEP. May 30, 2000.

2. CMA. Comments on the Framework Document for the VCCEP. May 30, 2000.

3. CMA, Chemstar, Acetone Panel. Comments on the Framework Document for the VCCEP. May 30, 2000.

4. CMA, Chemstar, Brominated Flame Retardant Industry Panel. Comments on the Framework Document for the VCCEP. May 30, 2000.

5. CMA, Chemstar, Cumene Panel. Comments on the Framework Document for the VCCEP. May 30, 2000.

6. CMA, Chemstar, Isophorone Task Group. Comments on the Framework Document for the VCCEP. May 30, 2000.

7. CMA, Chemstar, Ketones Panel. Comments on the Framework Document for the VCCEP. May 30, 2000.

8. CMA, Chemstar, Naphthalene Panel. Comments on the Framework Document for the VCCEP. May 30, 2000.

9. CMA, Chemstar, Phthalate Esters Panel. Comments on the Framework Document for the VCCEP. May 30, 2000.

10. CMA, Chemstar, Vinyl Chloride Health Committee. Comments on the Framework Document for the VCCEP. May 30, 2000.

11. Chemical Specialties Manufacturers Association (CSMA). Comments on the Framework Document for the VCCEP. June 1, 2000.

12. Doris Day Animal League. Comments on the Framework Document for the VCCEP. May 26, 2000.

13. Dow. Comments on the Framework Document for the VCCEP. May 23, 2000.

14. Halogenated Solvents Industries Association (HSIA). Comments on the Framework Document for the VCCEP. May 30, 2000.

15. HSIA. Comments on the Framework Document for the VCCEP. Filed electronically. May 30, 2000.

16. Humane Society of the United States. Comments on the Framework Document for the VCCEP. May 30, 2000.

17. King and Spalding. Comments on the Framework Document for the VCCEP. May 30, 2000.

18. The National Treasure Employees Union (NTEU). Comments on the Framework Document for the VCCEP. May 26, 2000.

19. Physicians Committee for Responsible Medicine (PCRM). Comments on the Framework Document for the VCCEP. Filed electronically. June 8, 2000.

20. PCRM. Comments on the Framework Document for the VCCEP. Filed electronically. May 30, 2000.

21. People for the Ethical Treatment of Animals (PETA). Comments on the Framework Document for the VCCEP. May 30, 2000.

22. Silicones Environmental Health and Safety Council (SEHSC). Comments on the Framework Document for the VCCEP. May 30, 2000.

23. Styrene Information and Research Center (SIRC). Comments on the Framework Document for the VCCEP. May 31, 2000.

24. Synthetic Organic Chemical Manufacturers Association (SOCMA). Comments on the Framework Document for the VCCEP. May 30, 2000.

25. The Dow Chemical Company. Comments on the Framework Document for the VCCEP. May 26, 2000.

26. People for the Ethical Treatment of Animals (PETA). Comments on the Framework Document for the VCCEP. December 10, 1999.

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IX. Regulatory Assessment Requirement

Pursuant to the Paperwork Reduction Act (PRA), 44 U.S.C. 3501 *et seq.*, an Agency may not conduct or sponsor, and a person is not required to respond to a collection of information that is

subject to approval under the PRA, unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations, after appearing in the preamble of the notice, are listed in 40 CFR part 9, and included on the related collection instrument. The information collection activities related to the submission of commitment letters and submission of data on health effects have been approved under OMB control number 2070–0033 (EPA ICR No. 1139) (Ref. 52). EPA will develop a new ICR to cover the submission of exposure and risk information for the chemicals in the VCCEP. The availability of the new ICR will be announced in the **Federal Register** and there will be an opportunity for public comment. Upon OMB approval of the new ICR, EPA will send a letter to the sponsors or issue a **Federal Register** notice reminding them of the due date for the Tier 1 information and will include the ICR number and OMB control number covering the data collection.

The collection of commitment letters and health effects information discussed in this notice is approved by OMB and the total burden hours currently approved for the information collection activities for a voluntary chemical evaluation program specifically accounts for the Agency's burden estimate for 22 chemicals during the OMB approved information collection period. EPA believes that if several chemicals are addressed as a group instead of individually, as discussed in Unit III.A. for *o*-xylene and *m*-xylene, that the burden estimate for a group should be that for a single chemical. EPA therefore believes that the existing approval includes a sufficient burden hour allocation to cover the burden related to the 23 chemicals in the pilot of this voluntary program.

The voluntary testing program involves the submission by the sponsor of one commitment letter per year and one long term report (referred to in this program as the Peer Consultation Document) per chemical or group per year. EPA estimates that the information collection activities related to commitment letters and health effects evaluation/testing discussed in the Peer Consultation Document would result in total burden hours of approximately 39,768 (Ref. 52, Attachment 7) . The average burden is estimated to be 68.36 hours per response (Ref. 52).

As defined by the PRA and 5 CFR 1320.3(b), ''burden'' means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

List of Subjects

Environmental protection, Chemicals, Children, Hazardous substances, Health and safety.

Dated: December 15, 2000.

Susan H. Wayland,

Acting Assistant Administrator for Prevention, Pesticides and Toxics.

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